

ABSTRACT

A light source apparatus includes a lamp, an ellipsoidal mirror collecting a part of light radiated from a light transmission plane of the lamp, and a spherical mirror collecting another part of the light radiated from a light transmission plane not collected by the ellipsoidal mirror and reflecting it on the ellipsoidal mirror, in which a reflection plane of the ellipsoidal mirror and the reflection plane of the spherical mirror are in a form of non-rotation symmetry to an optical axis connecting a focal position F1 corresponding to a source of luminescence of the lamp to a focal position F2 of the light collected by the ellipsoidal mirror respectively. The distance between the reflection plane of the spherical mirror and the source of luminescence of the lamp is shorter than the distance between the source of luminescence and the focus of the light collected by the ellipsoidal mirror, and a part of the reflection plane of the ellipsoidal mirror is formed around the optical axis.